

LogER: An Integrated Emergency Department Patient Log System

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INTRODUCTION

Emergency Departments in the United States, by JCAHO and other standards, must keep a log of patients who present for care. This log must include basic demographic and time information, the disposition and diagnosis, and certain other data. Department statistics are abstracted from this log, and it serves as a record of department activity. As data requests for statistical, credentialing, reimbursement and other purposes increase, the utility of a computerized log becomes apparent. Additionally, the need to perform quality assurance and improvement activities mandates a source of data well served by a computerized database. Recently, concern regarding positive identification of patients has been voiced. Traditional log systems do not insure positive identification. LogER is a patient log system designed to meet all of these needs.

METHODS

Requirements for log information were obtained from JCAHO standards, requirements for Emergency Medicine residency training, physician and nursing credentialing/competency documentation, and quality assurance/improvement needs. An SQL searchable database was developed using Microsoft Access, and a front end to that database created using Microsoft Visual Basic. Patients, care providers, and visits are uniquely identified in the database. Report generation features currently under development include standard department statistics and care provider-specific information for administrative purposes. The resulting software is integrated with existing commercial products for triage of emergency department patients and creating the physician record for emergency visits [Emergency Triage, ChartEM, Primus Systems, Inc.]. Positive patient identification, in the form of scanned or CCD-camera picture images, is stored in the

database structure, allowing the care provider a means of assuring proper patient identity. The interface is straightforward, and facilitates use by multiple care providers across a network installation.

DISCUSSION

The Emergency Department log is often a paper document, with data abstracted after the visit is completed, typically by a secretary. This data abstraction requires several minutes per patient, with log generation and maintenance occupying several hours daily in many emergency departments. Later abstraction of statistics from the paper log for administrative purposes requires further time and effort. A computerized log, storing data that exceeds JCAHO requirements and meets administrative needs for other purposes, can be used concurrently with the patient visit, and is therefore both more efficient and more useful than a paper log. One additional need, caused by a recent trend where patients share medical insurance cards, is positive patient identification. Such identification reduces the risk of erroneous medical data, such as multiple blood types for the same patient and incorrect medical history, in the patient chart. The LogER program was created to meet these needs, and to work as part of the existing product suite offered by Primus Systems, integrating Emergency Department Triage, Physician Charting, and Log functions.

CONCLUSION

A computerized emergency department log, LogER, is described that meets JCAHO requirements, provides quality assurance/improvement reports, and facilitates positive patient identification.